(a) providing a heat exchanger comprising a layer of polymeric film material having first and second major surfaces, wherein the first major surface includes a structured surface having a plurality of flow channels that extend from a first point to a second point along the surface of the layer, and that have a minimum aspect ratio of the channel's length to its hydraulic radius of about 10:1 and a hydraulic radius of no greater than about 300 micrometers;

(b) connecting a source of heat exchange fluid having a predetermined initial temperature to flow passages comprised of the flow channels;

(c) placing the heat exchanger in a position to conduct heat between the other media and the fluid within the heat exchanger; and

(d) providing a source of potential over the flow passages of the heat exchanger, and thereby moving the fluid through the flow passages from a first potential to a second potential, the movement of the fluid causing heat transfer between the moving fluid and the other media so as to thermally affect the media in proximity to the heat exchanger.

Please add the following new claims:

31. (New) The heat exchanger of claim 1, wherein the first layer comprises a microreplicated layer.

32. (New) The ~~heat exchanger~~ of claim 1, wherein the first cover layer comprises a thermally conductive layer.

~~33. (New) The heat exchanger of claim 1, wherein the heat exchanger~~ is flexible.

34. ~~(New)~~ The heat exchanger of claim 35, wherein the flexible heat exchanger can conform about a mandrel ~~that has a diameter~~ of at least about one centimeter (about 0.39 inches) without significantly constricting flow through the ~~plurality of~~ flow passages.

REMARKS

The above listed claim amendments along with the following remarks are believed to be fully responsive to the Office Action and Examiner's Interview set forth